



ENHANCED INSPECTION PROGRAM – LAND USE INSPECTIONS APPENDIX A

For alternate formats, call 206-296-6600.

Appendix A: Enhanced Inspection Program, Land Use Inspection Section

In accordance with the 2007 King County Design and Construction Standards, the applicant is ultimately responsible for quality control of construction and the assurance of meeting the standards. The following are excerpts from the WSDOT Standard Specifications and the 2007 King County Design and Construction Standards. The information is provided to highlight specific problem areas but is not intended to replace the entire applicable standards.

A. Preconstruction Conference: Three working days prior notice. Construction Manager, Project Engineer, Quality Assurance Engineer, Certified Erosion and Sedimentation Control Lead (CESCL), General Contractor and DDES inspector meet on site to discuss roles and responsibilities, problem areas, unique conditions.

Applicable Standards

2007 King County Design and Construction Standards, chapter 9
WSDOT Standard Specifications Section 1-06, 1-10

Source of materials shall be approved by the County Road Engineer or Development Engineer before the delivery is started. WSDOT Qualified Products List http://www.wsdot.wa.gov/biz/mats/QPL/QPL_Search.cfm and Aggregate Source Approval <http://www.wsdot.wa.gov/biz/mats/asa/> shall be used unless approved in writing by the County Road Engineer or Development Engineer.

Work performed on County roads open to the public requires a traffic control plan approved by the Development Engineer prior to beginning work.

Project Engineer shall have on site:

- Approved construction plans
- Approved conditions
- 2005 Surface Water Design Manual
- 2005 Surface Water Design Manual, Appendix D
- 2007 King County Road Design and Construction Standards
- 2008 WSDOT Standard Specifications
- Current WSDOT Standard Plans
- Other permits such as DOE Construction Permit, Hydraulic Project Approval

The contractor shall maintain a binder of all material certifications, special inspections, testing and wrap up letters and provide a copy of same to the inspector.

B. Clearing and Temporary Erosion/Sedimentation Control: One working day notice prior to initial site work

Applicable Standards

2005 Surface Water Design Manual, Appendix D
2007 King County Design and Construction Standards, chapter 9
WSDOT Standard Specifications Section 2-01, 2-02, 2-03, 2-06, 6-11, 6-13, 6-14, 8-01, 8-24, 9-14

Project Engineer, CESCL, Quality Assurance Engineer, DDES inspector*, clearing contractor, grading contractor hold mini precon. Go over erosion and sedimentation control requirements and mass grading compaction, trucking requirements. CESCL shall complete the Surface Water Design Manual Appendix D "ESC Maintenance Report" at least twice a month during the dry season, weekly during the wet season, and within 24 hours of significant storms.

Compaction testing shall be in accordance with chapter 9 KCRDCS. Quality Assurance Engineer shall stop work if compaction testing is not per chapter 9 requirements or reflects compaction that does not comply with standards.

DDES inspector shall perform spot checks and stop work if standards are not being met.

C. Utility and Storm-Drainage Installation: One working day notice prior to trenching and placing underground utilities.

Applicable Standards

2005 Surface Water Design Manual

2007 King County Design and Construction Standards, Chapters 7, 8 and 9

WSDOT Pipe Zone Bedding and Backfill Standard Plan B-55.20-00

WSDOT 2008 Standard Specifications, Section 2-06, 7-02, 7-03, 7-05, 7-08, 7-09

Project Engineer, Quality Assurance Engineer, DDES inspector*, utility contractor hold mini precon. Requirement for three dimensional pipe and catch basin location by land surveyor to avoid curb alignment problems. Documentation required: pipe bedding, special requirements for flexible pipe (N-12). Traffic control in place on existing roads.

DDES inspector shall perform spot checks and stop work if standards are not being met.

Includes compliance with King County Code 9.04.090 and the related Drainage Facilities "In Operation" Public Rule, (including infiltration testing). Improvements and/or buildings shall not be installed until drainage facilities are in operation.

Initial confined space entry inspection by DDES inspector. Any identified problems to be corrected prior to backfill.

D. Utility and Storm Drainage Backfill and Compaction: One working day notice before backfill of underground utilities.

Applicable Standards

2005 Surface Water Design Manual

2007 King County Design and Construction Standards, Chapters 7, 8 and 9

WSDOT Pipe Zone Bedding and Backfill Standard Plan B-55.20-00

WSDOT 2008 Standard Specifications, Section 2-06, 7-08

Quality Assurance Engineer:

Checks pipe and catch basin alignment prior to backfill to ensure curbs will line up

Checks pipe joints and pipe bedding prior to backfill

Monitors backfill to ensure pipes do not move

Documentation of backfill material, compaction, moisture content

DDES inspector shall perform spot checks and stop work if standards are not being met.

Second confined space entry inspection by DDES inspector to verify backfill did not dislocate drainage facilities. Any identified problems to be corrected prior to subgrade completion phase.

E. Subgrade Completion: One working day notice at stage that underground utilities and roadway grading are complete.

Applicable Standards

2007 King County Design and Construction Standards, chapters 8 and 9
WSDOT Standard Specifications Section 2-03, 2-06, 4-06

Storm drains require DDES candling and applicant correction of any problems prior to any surfacing.

Quality Assurance Engineer to review and approve all compaction tests prior to DDES verification. Pay specific attention to method B and moisture content.

After verification of density tests, proof roll inspection by the DDES inspector shall be required.

F. Curb and Sidewalk Forming: One working day notice to verify proper forming and preparation prior to placing concrete.

Most contractors install the concrete curbs before installing any road surfacing. In this case, the subgrade under the curb and the road subgrade shall comply with the subgrade completion inspection requirement above.

Applicable Standards

2007 King County Design and Construction Standards, chapters 3, 8 and 9
WSDOT Standard Specifications Sections 2-03, 2-06, 6-02, 8-04, 8-14

Quality Assurance Engineer shall check proper alignment of curbs to catch basins, proper slopes for drainage to catch basins, ADA ramps, concrete thickness for rolled Vs vertical curb, thickness of crushed surfacing.

DDES inspector shall perform spot checks and stop work if standards are not being met. If problems are identified they shall be corrected before moving onto the next phase.

G. Curb and Sidewalk Placement: One working day notice to check placement of concrete.

Applicable Standards

2007 King County Design and Construction Standards, chapters 3, 8 and 9
WSDOT Standard Specifications Sections 2-03, 2-06, 6-02, 8-04, 8-14

Storm drains require DDES candling and applicant correction of any problems prior to pouring curb.

Quality Assurance Engineer to review and approve all compaction tests prior to DDES verification. Pay specific attention to method B and moisture content.

After verification of density tests, proof roll inspection by the DDES inspector shall be required. Curbs shall not be poured without a passing proof roll. Verification of required crushed surfacing.

American Concrete Institute (ACI) Documentation per WSDOT 6-02 shall be required for all concrete and shall be approved by the Quality Assurance Engineer and verified by the DDES inspector: (e.g.: mix design, truck tickets, number of truck rotations, water cement ratio, air entrainment, temperature, slump tests, cylinders). Quality Assurance Engineer shall ensure concrete curing per WSDOT standards.

DDES inspector shall perform spot checks and stop work if standards are not being met.

H. Sidewalk Forming: One working day notice to verify forms and crushed surfacing base preparation.

Applicable Standards

2007 King County Design and Construction Standards, chapters 3, 8 and 9

WSDOT Standard Specifications Sections 2-03, 2-06, 6-02, 8-04, 8-14

Quality Assurance Engineer shall check ADA ramps, concrete thickness for rolled Vs vertical curb, installation of crushed surfacing.

DDES inspector shall perform spot checks and stop work if standards are not being met.

I. Crushed Surfacing Placement: One working day notice to check placement and compaction of crushed surfacing base course and top course.

Applicable Standards

2007 King County Design and Construction Standards, chapter 9

WSDOT Standard Specifications Sections 4-04, 4-06

Quality Assurance Engineer shall check source of materials and verify compliance with requirements. Provide documentation to DDES inspector for verification. Quality Assurance Engineer shall monitor placement and compaction for compliance with standards. Top course shall not be placed until base course is approved by Quality Assurance Engineer.

DDES inspector shall perform spot checks and stop work if standards are not being met.

J. Paving: Three working days notice in advance of paving with asphalt or Portland cement concrete.

Applicable Standards

2007 King County Design and Construction Standards, chapter 9

WSDOT Standard Specifications Sections 5-04, 5-05, 8-22, 8-23

Hot Mix Asphalt

Documentation per WSDOT 5-04 shall be required for all Hot Mix Asphalt and shall be approved by the Quality Assurance Engineer and verified by the DDES inspector: (e.g.: mix design, truck tickets, temperature, compaction, thickness, cross slope). Provide documentation to DDES inspector.

Portland Cement Concrete Pavement

American Concrete Institute (ACI) Documentation per WSDOT 5-05 shall be required for all Portland Cement Concrete Pavement and shall be approved by the Quality Assurance Engineer and verified by the DDES inspector: (e.g.: mix design, truck tickets, number of truck rotations, water cement ratio, air entrainment, temperature, slump tests, cylinders). Quality Assurance Engineer shall provide documentation to DDES inspector.

Quality Assurance Engineer shall stop work if any requirements are not being met. DDES inspector shall be present during paving operations.

K. Structural: Certification that structural elements completed per plan.

Applicable Standards

2007 King County Design and Construction Standards, chapter 9

WSDOT Standard Specifications Sections 2-09, 6-01, 6-02, 6-11, 6-12, 6-13, 6-14, 6-15, 6-16

Full time special inspections required. Quality Assurance Engineer shall stop work if any aspect does not comply with standards and plans. Quality Assurance Engineer shall verify compliance with requirements and provide documentation to DDES Engineer

DDES inspector shall perform spot checks and stop work if standards are not being met.

L. Punchlist Inspection: 15 days notice to schedule a punchlist inspection.

Applicant shall complete the Punch list Inspection Request form certifying that the minimal requirements for a punch list have been met.

The punch list inspection is intended to be a final review of all field construction and final paperwork needed to grant Final Construction Approval. This includes an inspection of all surface improvements but does not include a re-inspection of earlier documentation, pipe candling or underground inspections unless unexpected problems arise.

If problems that should have been addressed at an earlier stage of construction are identified, the punch list inspection process will cease until these problem are addressed.

If at any time during the punch list inspection the DDES inspector determines that the minimum punch list requirements have not been met, the inspection shall be suspended until the requirements have been complied with.

In accordance with the DDES/DOT Partnering Agreement, DOT staff will also participate in the punch list inspection process.

Check out the DDES Web site at www.kingcounty.gov/permits